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*[Continued on Cover 3.]*

BOARD OF EDUCATION  
EDUCATIONAL PAMPHLETS, No. 87

MEMORANDUM ON  
THE POSSIBILITY OF INCREASED  
CO-OPERATION BETWEEN PUBLIC  
MUSEUMS AND PUBLIC  
EDUCATIONAL INSTITUTIONS

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PRINTED AND PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE  
To be purchased directly from H.M. STATIONERY OFFICE at the following addresses:  
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1931

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13.1.1932

HPS

25.01.96.

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### PREFATORY NOTE.

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The Board have for some time had in contemplation the publication of a pamphlet on the relation of museums and galleries to the schools. In the course of its preparation they were approached on the matter by the Standing Commission on Museums and Galleries. The Board hope that the issue of this pamphlet will stimulate a wider interest in the educational possibilities of museums and galleries and will lead to their more effective use for educational purposes.

Board of Education,  
November, 1931.

## CHAPTER I.

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### INTRODUCTION.

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#### Purpose of the Memorandum.

1. Within the last few years the museums of this country have developed a growing desire to be of service, not only to the scholar and to the general public but also to the schools. In 1928 the Carnegie Trustees published a striking report by Sir Henry Miers on the Museums of the British Isles. Following closely on Dr. E. E. Lowe's report on American Museum Work, it created a strong impression that valuable educational opportunities were being missed. This impression was strengthened by the reports of the recent Royal Commission on National Museums and Galleries, and by its published Minutes of Evidence. Resources equal in richness and variety to those of any country in the world, upon which large sums of public money are annually expended, were not being used as they could and should be used in the service of popular education.

2. These reports are disturbing and should lead all concerned to consider to what extent closer co-operation between the schools and the museums is possible and desirable. The following memorandum aims at assisting the discussion by showing briefly how the present position has been reached and by describing a few typical methods by which the museums have already, in some places, been brought into fruitful co-operation with the public educational system. It also attempts to suggest, from the educational point of view, the difficulties which exist and the lines along which advance may reasonably be expected.

### **The present situation.**

3. There are in England and Wales more than four hundred museums\* accessible to the public. About a score of these have organised arrangements for lending exhibits to the Public Elementary Schools. [Information collected by H.M. Inspectors indicates that about fifty are used by such schools in a more or less regular, systematic way and about a hundred are visited more casually and unsystematically by parties of Public Elementary School children in school hours. Where museums are regularly visited, it does not follow that all, or any large proportion, of the schools in the neighbourhood participate in the arrangements.]

### **Future possibilities.**

4. The situation is, no doubt, improving and the progress made in the somewhat parallel case of the libraries is full of encouragement for the future, especially when it is remembered that the links which now connect the public libraries with the educational system have been formed, in many parts of the country, only within the last ten years. Indeed, the following pages shew that the museums, like the libraries, are entering upon a period of increased usefulness to the schools, and that the schools have begun to appreciate to a greater extent than formerly how much they can gain from closer co-operation with the museums.

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\* Throughout this memorandum, the word "museum" includes all museums and galleries except those which are solely devoted to pictures.

## CHAPTER II.

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### HISTORICAL SURVEY.

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#### Scope of the Chapter.

5. Before considering how the present situation can be improved, it is desirable to understand how it has arisen. A short summary of the history of the museums and a few observations on the recent history of education will help to elucidate the present position and perhaps suggest in which directions improvement may be expected.

#### Origin of Museums.

6. It is necessary to realize, in the first place, that there was no educational purpose in view when the first museum collections were assembled; the educational use of such collections was an afterthought, though a natural and obvious one. Many of our museums began as the collections of wealthy, travelled individuals, which were gradually absorbed into public institutions; and the only principle of selection, therefore, was the taste of the individual collector. If a single aim in such early collections can be discerned, it is that of astonishing the visitor, more often than of enlightening him. They appealed to a taste, not so much for exact knowledge as for the marvellous, the sublime and the horrible; the objects they contained were usually rare curiosities and works of art, and occasionally such gruesome things as instruments of torture or the skulls of notorious criminals. They were not organised for research or used for continuous study until the last century, and some of them, as Sir Henry Miers' report shows, have not yet been able to rise far above their original condition. It is scarcely surprising that the popular idea of a museum is still largely coloured by these facts.

Their development in the nineteenth century.

7. Side by side with this old conception of a museum there gradually developed during the last century the idea that a school of advanced study in art, science or technology needed, as part of its teaching material, a collection of objects to which the word "museum" might fittingly be applied, and which might also, under suitable safeguards, be made accessible to other schools and to the general public. To the national colleges of art and science at South Kensington were thus attached the museums now known as the Victoria and Albert Museum and the Science Museum, and in some localities museums were similarly attached to the local Art Schools and to the Mechanics' Institutes which were the forerunners of our modern Technical Colleges. Such museums, however, soon developed an independent life of their own and tended to become separated from the institutions to which they had originally been attached. One reason doubtless lay in the fact that both institutions grew so rapidly that the problem of accommodation could only be solved by moving one or the other into new premises. Another may be sought, in some cases, in the acceptance of private collections and of the conditions attached to them.

#### Local Museums.

8. Under the Museums Act of 1845, it became possible to devote local public funds to the maintenance of museums, and a long series of statutes, down to the Public Libraries Act of 1919, further regulated and extended this provision. This legislation has led to the acquisition by the local authorities of many private collections. The process was rapid, but it appears to have been inspired largely by a collecting instinct; the great majority of these local municipal museums—now numbering some 300—were not established, housed or arranged with a view to meeting modern educational needs. Bequests and gifts, however

unsuitable, were almost invariably accepted, and retribution followed. Sir Henry Miers found that the provincial museums were distributed haphazard, that many of them were hopelessly congested, and many, perhaps most, had attempted more than their resources justified. With certain important exceptions, they were failing to serve the needs either of research or of popular education. In some of them, articles of great potential educational value were actually in danger of falling into decay.

### The South Kensington Museums.

[9. The great national museums of Science and Art at South Kensington, established about the middle of the last century, are of special interest as having been among the first large museums in the world to be deliberately founded with popular education in view. The Exhibition of 1851 had caused an important section of the community to realise that industrial expansion, and therefore the prosperity of the country, must depend ultimately on the advance of scientific knowledge and artistic taste. The museum of Science was intended to exhibit the progress of scientific discovery and the applications of scientific principles in the arts and manufactures in the hope that the standard of technical education would improve and that industry would learn to use new discoveries without unnecessary delay. The museum of Art was similarly intended to become a means of raising the general standard of artistic design in industry, and thus enable manufacturers to compete more effectively with their rivals in other countries.

10. In order that the influence of these two institutions should not be confined to London, the colleges associated with them were to train teachers for the provincial schools of science and art. In addition, an arrangement of special importance from our present point of view was made in the case of the Art museum. Since 1864 this museum (now

known as the Victoria and Albert Museum) has circulated loan collections of specimens to recognised schools of art and to museums attached to such schools; in 1886 the system was extended to museums and galleries not connected with schools. Since 1908 the loan collections have been entirely separated from the collections exhibited in the London galleries and the service has been continuously improved and expanded. It is now no longer confined to art schools and local museums; some conception of its present scope may be derived from a few recent statistics. In 1930, the loan comprised 39,312 works of art, etc., 18,544 lantern slides and 519 books. They were issued to 37 training colleges, 359 secondary schools, 261 art schools, etc., 76 local museums, 5 temporary exhibitions and 34 other institutions.

11. The recent Royal Commission regarded this service as one of great value to education generally and recommended that it should be continued and enlarged and that other national museums should be included within its scope. They hoped that the principle of circulation would be definitely extended, on as wide a scale as possible, to scientific objects, especially specimens of natural history, and this improvement in the organisation of the museums service was specially commended to the attention of the Standing Commission which has since been appointed.

#### Recent tendencies.

12. Since the beginning of the present century, and more especially since the war, a "museums movement" has begun and made some headway in this country. The museums, both national and local, are undergoing a process of rationalisation and adaptation to modern needs. The movement can be followed in many areas and in many publications, more especially in the reports of Sir William Boyd Dawkins on the organisation of museums in Manchester (1918), of Sir Francis Ogilvie on the museums

of Sheffield (1919), of the Ministry of Reconstruction Committee on Adult Education (1919) and of the British Association Committee on Museums in relation to Education (1920). These have been followed by the reports of Dr. Lowe and Sir Henry Miers already mentioned (paragraph 1 above) and by those of the recent Royal Commission on the National Museums and Galleries. The whole movement has been fostered and encouraged by the Museums Association, and has been given an entirely new stimulus, so far as the provincial museums are concerned, by the generous action of the Carnegie United Kingdom Trust.

13. The main tendencies characteristic of this modern "museums movement" may conveniently be summarised under two headings, firstly under external policy, and secondly as regards internal affairs. Externally, the museums are tending to co-operate with each other and are no longer content to remain isolated units. By agreeing to specialise and either to reject incongruous gifts or to send them to museums to which they are really suited, they have begun to attack the problem of congestion at its source. Arrangements for the loan of exhibits to other museums and to schools contribute to the same end; they also help to prevent the stagnation which leads inevitably to the loss of local interest and therefore of local support. The movement aims, indeed, at federating the public museums of the country into an organised public service, in which each unit will have a definite function and act in regular co-operation with other units, both national and local, and with the public service of education. In Wales and in some districts in England considerable progress in this direction has already been made.

14. Internally, many of the museums have devoted much more attention than formerly to the problems of storage, arrangement and effective display. Skilful

spacing of the exhibits, with clear, simple labels, the use of illustrative maps, models and diagrams, together with a logical and orderly arrangement of the whole collection, clearly stated in prominent explanatory labels—these have entirely transformed a steadily increasing number of museums. In illustrating such subjects as natural history, or human life at various times and in various places, the museums are increasingly using realistic backgrounds and lifelike panorama models. It is realised that both school children and the general public can appreciate the significance, for example, of costume, furniture, weapons and utensils more easily if they are displayed in their natural setting. The greater space needed for this kind of display has been secured partly by disposing of unsuitable exhibits and partly by deliberately discriminating between those objects suitable for public exhibition and those which should be stored for the use of research workers and brought out only when required. In the Deutsches Museum at Munich and in the large American museums, this new museum technique can be seen actively in operation on a large scale. In our own country the London Museum at St. James's, the Science Museum and the Imperial Institute at South Kensington, and the National Museum of Wales at Cardiff, offer interesting examples.

15. Within the last few months special attention has been directed to the circulation of collections of exhibits to rural schools. In January, 1931, the Museums Association, with assistance from the Carnegie Trustees, organised for the Association of Directors and Secretaries of Education an exhibition of museum specimens specially prepared for circulation to rural areas by local museums. Besides exhibits from Canada and the United States there were contributions from one Scottish and eight English museums. The pamphlet issued by the Museums Association in connexion with this exhibition suggests the

possibilities of this development and also illustrates the new standards of arrangement, labelling and display which characterise the more progressive of the local museums.

#### **Educational developments.**

16. The schools, like the museums, tend to be judged by their past rather than their present condition; but just as the museums are modernising themselves, so also are the schools, and a brief summary will suffice to show that the lines of advance are in many ways convergent. The general trend of progress can perhaps best be exhibited by considering separately the several types of schools and colleges.

#### **Universities.**

17. Museums have for long been recognized as a necessity to universities. Besides general museums, open to the public, the universities maintain numerous specialist museums, closely associated with the several faculties and regarded as an essential part of their teaching equipment. In such a subject as Geology or Comparative Anatomy the need for museum facilities is sufficiently obvious, but the improvement of teaching methods has caused the use of such facilities to extend beyond the various branches of natural science. To give only one example, the provision for Classical studies is now considered to be incomplete in the absence of museums of archæology. The teaching methods in use at the universities are steadily changing in this respect. Only the lack of financial resources accounts for the absence, in some of the newer universities, of a full range of museums.

#### **Training Colleges.**

18. As regards their general studies, the special Departments and Colleges for the training of teachers have been influenced by the development of university teaching. On the side of their pedagogical work, they are increasingly

arranging for their students to visit neighbouring museums. Of special interest from this point of view is a type of collection, found abroad but not now in this country, which aims at illustrating the development of educational practice. At one time we had such a museum. In 1854 the Society of Arts organised an exhibition of English and foreign educational appliances; from this sprang the "Educational Museum" which the Education Department maintained at South Kensington from 1857 to 1888. It exhibited books (which eventually formed the nucleus of the present Board of Education Library), and an assortment of science apparatus, drawing models, school furniture, etc., which has long since vanished. Since then we have preferred in this country to organise temporary educational exhibitions, in connexion, for instance, with educational conferences. It is held that a permanent collection inevitably tends to become congested and out of date.

#### Adult Education.

19. The University Tutorial Class movement, which has spread so rapidly in the last twenty years and now forms the backbone of our Adult Education system, was closely associated in its infancy with the Trade Unions. In consequence, it was at first very largely concerned with social and economic phenomena. These are subjects in which the use of museum material is not yet customary, even at the universities. It may be observed, however, that the universities are increasingly approaching these subjects from the realistic or scientific angle and basing their treatment of them on a close study of the history of social and economic progress. There is also a tendency for Tutorial Classes to develop in the direction of æsthetic and scientific studies. The importance of museums will become clearer as these new interests develop, and the

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\* This term is used, in quite a different sense, in para. 51 below.

time will doubtless come when the Adult Education movement will make much greater use than at present of the resources of national and local museums. Prominent museum authorities have already shown a keen interest in the movement and readiness to help.

#### Technical, etc., Schools.

20. The technical and art schools were founded at a time when the South Kensington tradition was very powerful and largely under the direct inspiration of the Science and Art Department. It is not, therefore, surprising to find among the Art Schools a greater readiness to use museums than is usually displayed by schools of other types. Some of the Craft or Trade Schools in London send their pupils more regularly to the public museums than any other type of school, and most of the larger provincial museums and galleries co-operate closely with the local art schools. Besides lending exhibits and providing for students who desire to work in the galleries they also lend rooms for exhibitions of the students' work and co-operate in other ways.

21. The provincial technical schools have not, as a rule, preserved in this way the tradition of co-operation with public museums, possibly because the local museums have been inclined to concentrate on the past, whereas the technical schools are mainly interested in the present and the future. Some of the largest, however, have, like the universities, established museums of their own, with the aid of gifts or loans from former pupils, local employers, and South Kensington. In such subjects as mining, metallurgy and textile design and manufacture, for example, there are interesting and useful collections in many of the Technical Colleges; in engineering and building, some good collections of models and sample materials have also been formed. It is possible that some of these specialist collections might be helpful to other schools in

the locality and interesting to the general public, if means could be found of making them generally known and more widely available without unduly hampering the work of the College. In one or two places, co-operation with the public museum has enabled progress in this direction to be made.

22. During recent years increasing attention has been given to the study of commodities in many commercial colleges. At the City of London College, for example, courses of instruction in such commodities as timber, grain, tea, sugar, paper, textiles and rubber have been organised, mainly for persons engaged in the wholesale trade. The College has a commercial museum in which specimens of the commodities are kept in such a way as to admit of easy handling and examination by the students. A valuable exhibit of specimens of various kinds of woods has been lent to the College by the Imperial Institute.

23. The Final Report of the Committee on Education for Salesmanship points out (page 133) that the collections in museums and art galleries form an essential background to the work of many commercial students, especially those who are connected with industries which have an artistic element. The closest co-operation possible amongst those responsible for the conduct of museums and art galleries, education authorities, business organisations and firms is recommended by this Committee.

#### Secondary Schools.

24. The tradition of the Secondary Schools has developed from three main sources, the old endowed Grammar Schools (some of which came to be Public Schools), the Organised Science Schools (created under the South Kensington inspiration) and the Higher Grade Schools founded towards the end of the last century by the more progressive School Boards. From the first and most powerful of these

sources the schools derived the traditional connexion with the universities, from which their teachers are mainly drawn. They have not unnaturally tended to make for themselves collections similar in principle to those used at the universities—that is to say, general museums, supplemented by departmental collections of specimens, models, diagrams and so on, in the laboratories and “subject” rooms. The general “school museums” range from small, neglected collections in glass cases in the corridors, up to the museums housed in special rooms, or even buildings, in the Public Schools. Some of the latter are well arranged, well labelled, and well used. Some contain very fine and valuable exhibits. It is open to question, indeed, whether some of them are not too good for a school; perhaps they would be more useful from the school point of view if they had fewer “specimens”, more exhibits of the modern type, and more explanatory labels. Much will depend on the Curator: but a school museum should not be thought of as the special preserve of the Curator. Its resources should be known and used by each and every member of the school staff whose work in the classroom or science lecture room can be illustrated and made real by the exhibits of the museum.

25. The departmental collections are not usually thought of as “museums”, but their function is clearly that of a museum as the term is now coming to be used. In such subjects as Botany and Geology, this kind of equipment has long been customary; in recent years it has come to be almost universal in Geography rooms. It is only gradually that the schools are coming to realise that History has similar claims to special rooms, with equipment analogous to that now provided for Geography. In Modern Languages some schools have made collections of “Realien” on the German model—foreign placards, coins, stamps, etc., which give to the classroom something of the atmosphere of the foreign country.

26. In many places, H.M. Inspectors report that the teachers of Art, Science, History and Classics supplement those departmental collections by material borrowed from the Victoria and Albert Museum, the National Museum of Wales, and such bodies as the Archæological Aids Society. Many of them regularly take their pupils to museums to see exhibits illustrating the subjects they are studying at the time, to study the work of great artists and craftsmen, or to attend special museum lectures. The girls' schools appear, on the whole, to have progressed further in this direction than the boys' schools. Speaking generally, the reports of H.M. Inspectors supply evidence that the Secondary Schools are increasingly utilising the museums and galleries; the movement is, however, confined to definite areas. Undoubtedly there is plenty of scope for further improvement in many parts of the country.

#### Public Elementary Schools.

27. The elementary schools, though founded long before the municipal secondary schools, have attempted to go much beyond the rudiments of a general education only in the last thirty or forty years. The leaving age has been raised by gradual stages and until comparatively recent years the children were too young, the classes were too large, and resources were too limited for these schools to attempt, with any prospect of success, to teach general subjects to a stage at which the full benefit can be obtained from co-operation with museums. But the spirit which now characterises the more progressive schools is favourable to methods of teaching involving the use of equipment analogous to the contents of modern museums. The influence of Pestalozzi and Froebel is powerful in the Primary Departments and is wholly favourable to such methods. The extension of that influence upwards may be partly responsible for the movement which is gradually transforming the higher stages of the system of elementary education.

28. Since about 1910, and more especially since the war, traditional methods have been regarded as inappropriate for a large proportion of children after the age of about eleven. These children do not easily appreciate the connexion between books and ideas on the one hand and the everyday world of men and things on the other. More practical methods, designed to establish a closer connexion between the studies of the school and the natural interests of the children, are advocated, and in order to give them full scope the schools are being re-organised so that at the age of eleven those children who do not enter secondary schools will proceed to a new type of school. These new "Modern" Schools will aim at a more direct appeal than has been customary in the past to the interest of the adolescent in practical activities and the actual material world about him, as distinct from ideas and generalisations. Above all, if the object of the newly organised schools is to create "interests" which the pupil can carry into adult life, we have in the proper use of the Museum a most effective instrument for this purpose.

29. There is a distinct opportunity at this point for useful co-operation between the schools and the museums, especially those museums which aim at illustrating the life of the locality by reference to its past, its natural resources and the scientific principles underlying local industries and occupations. In the Hadow Report, the chief document explaining the reorganisation movement, stress is frequently laid on the importance of these topics, as material for a general education, and the "realistic" method of approaching them is advocated.

#### **Village surveys.**

30. A tendency of considerable interest, in harmony both with the "museums movement" and with the principles of the Hadow Report, has made rapid progress in some areas. "Regional surveys" in which the children search

out and record all they can discover about the past and present occupations, resources, etc., of the locality immediately around the school, have been undertaken in many places. Such a survey was the subject of a pamphlet\* recently published by the Board and there are areas, notably the county of Northampton, in which all the schools in the area have co-operated to complete a wide survey, concentrating on one special topic or aspect. Clearly this movement opens up the possibility of a new kind of co-operation between the schools and the local museums.

31. In some rural areas, the schools have helped to organise Village Exhibitions, illustrating the past history of the locality; in one or two, such exhibitions have formed the starting point for permanent museums, somewhat akin to the Folk Museums mentioned in paragraph 43 below. Such effort is not only valuable to the museums as a means to the preservation of material which might otherwise be lost, it can also be made to serve educational purposes of some importance.

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\* Educational Pamphlet No. 61: "Village Survey Making", published by H.M. Stationery Office, price 1/-.

## CHAPTER III.

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### ILLUSTRATIVE EXAMPLES.

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#### Examples from other countries.

32. Before attempting to discuss, from a general standpoint, the various possible methods of co-operation, it will be useful to describe briefly certain arrangements already in actual operation. As information about other countries is somewhat inaccessible to the English reader a few interesting examples from America, Germany, Scandinavia and the Netherlands merit special attention.

#### American Museums.

33. Besides the great national collections, there are about a thousand museums in the United States. Many receive no aid from public funds, practically all are dependent upon voluntary subscriptions and private benefactions, but all have been deliberately created as auxiliary to the education system of the country. A regular system of loans and exchanges links them with each other and with the national collections; by this means even the smallest can avoid staleness and stagnation. Their Museums Association, of which all are members, actively disseminates information about new discoveries and developments and provides regular instruction in museum technique. Three actual examples (each representative of a large group) will suffice to show how close is the connexion in America between the public museums and the public schools.\*

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\* In America, a "public school" is a school maintained by a municipal or other public authority.

### The Brooklyn Children's Museum.

34. A large house, standing in pleasant grounds at Park Place, Brooklyn Avenue, contains the Children's Museum which has served as the model for this type of institution. Its airy, well-lighted rooms receive about half a million visits by individual children each year; in addition, it makes regular loans of objects\* or small collections which are taken away to the children's homes or schools. Besides the museum galleries and a library with files of maps, posters, photographs, etc., as well as books, there are rooms in which the children can play "museum games" and in which Boy Scout Troops, Woodcraft Tribes and similar organisations, and classes from the schools, can use the resources of the museum under easy, comfortable conditions. The collections are illustrative of nature study, history, geography, etc.; many of the objects in the exhibition rooms, as well as the loan collections, can be handled by the children themselves. The aim in view throughout is to appeal to the natural instincts and interests of young people. An illustrated monthly magazine is published, which circulates among teachers and parents as well as the children themselves, and thus brings new developments and activities to the notice of those likely to be interested; in addition, publicity is secured by means of wireless broadcasting.

35. Co-operation with schools is the special care of a woman "Curator of Education" who has the assistance in this work of four teachers assigned by the local Board of Education†. During school hours, talks (illustrated by films and lantern slides as well as by the exhibits) are given to classes from local schools, which attend regularly and systematically for connected courses. More distant schools send classes to spend a whole day at the museum, talks and other activities being suitably alternated and

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\* Some American museums lend live animals to school children.

† The equivalent of the Local Education Authority in England.

provision made for a midday meal. Teachers from many parts of the city attend out of school hours, some of them serving as voluntary helpers in dealing with the children who attend at these times as individuals or members of clubs. Here, as in other American museums, passive looking at objects is held to be insufficient and in the long run boring and uneducative; materials and tools are available by means of which the children can undertake active work suggested by the exhibits. Some of the exhibits are, in fact, the work of the young people themselves.

### St. Louis School Museum.

36. At St. Louis, Missouri, the educational authorities maintain a "Public School Museum" which may be described as a central dépôt for teaching material other than such material as each school will have permanently on the premises. Housed in a disused school building, converted for the purpose, the museum devotes only one of its three floors to the display of exhibits; and this is solely for the benefit of teachers, so that they may conveniently examine samples of the material available. For the rest, the building is a warehouse rather than a museum. Boxes, cases, jars, etc., are there in store, awaiting despatch to the schools by motor van, or their contents are being checked and catalogued as they come back from the schools.

37. These contents include not only the objects usually found in museums, but also classified collections of cinema films, lantern slides, gramophone records, photographs, charts and models. The classification is so devised that such a subject as, for example, clothing, can be illustrated in many different ways—e.g., history by specimens, textile production processes by models, style by lantern slides and films, the properties of textile fibres by scientific apparatus. The range of the collections is wide, covering material to be used in almost every stage and subject of

the curriculum; over 60,000 collections are sent out annually to the schools. The teachers are, of course, under no compulsion to use the museum; they order what they need or nothing at all, as they choose. Museums of this type—i.e., circulating loan collections for all the schools of an area—are spreading rapidly in the United States and Canada; their activities extend beyond the cities and now cover many rural areas. Sometimes they form sections in public museums and sometimes, as at St. Louis, they are maintained by the Board of Education. In the latter case they are often called “visual education departments”, but the term is perhaps misleading, since the material circulated is intended not merely to be looked at, but also to be handled and used.

#### Cleveland, Ohio.

38. Cleveland, Ohio—a city about the size of Liverpool or Birmingham—has a Museum of Natural History founded by the Western Reserve Historical Society, another of Art and a third of History. Within comparatively recent years these museums have invited the attendance of classes from the schools. From modest beginnings there has arisen a carefully organised system of co-operation between the Cleveland Board of Education and the museums which typifies the arrangements in a large number of American cities. Teachers, employed by the Board of Education but under the direction of the museum authorities, arrange with the schools for programmes of museum study, meet the classes at the museum and guide their work. The arrangements are not forced on the schools, but depend entirely upon the willing co-operation of head teachers, teachers, parents and museum officials, between whom there is regular and systematic consultation. The actual work of a class in the museum building is particularly interesting because the children themselves are active. Only for a small part of the time are they studying the

contents of glass cases while the teacher lectures to them. For the most part they are actually handling objects, making drawings, enacting scenes suggested by the exhibits, and so on. At the Museum of Natural History, for example, they make feeding stands, bird baths and the like, and keep records of such things as the growth of plants or the visits of birds throughout a season. This museum is as much a laboratory as a museum, so far as the children are concerned, but it is a laboratory with infinitely wider resources ready at hand than any single school could possibly provide. In the Museums of Art and History, the children similarly make such things as vases and models of the buildings of former ages, enact historical plays, dress dolls in historical costumes and are active in a variety of other ways. The extent of the work is shown by a few typical statistics:—In the last complete year for which figures are available, the Natural History Museum received visits from 831 classes, from 105 elementary schools, involving 27,577 pupils; in the same year the Art Museum held 43 teachers' meetings for demonstration, etc., gave 23 special talks in schools, and made provision for 901 elementary and 169 secondary classes.

#### **Munich (Deutsches Museum).**

39. The Deutsches Museum at Munich, opened in 1925, and devoted solely to pure and applied science (excluding Biology), embodies, on a vast scale, ideas which mark an epoch in the evolution of museums as instruments of popular education. In other museums one may look at the exhibits and sometimes hear them explained; in some, machines may be observed in motion. In the Deutsches Museum the ordinary visitor can also make, with his own hands, experiments which elucidate some of the fundamental principles of Science and their application to art and industry. For example, in the Optics section, there are large models of the human eye, each with a translucent

retina, so that the images thrown by distant objects can be examined. One model represents a normal eye; others represent various common defects. The visitor can slide lenses in front of the models, and examine for himself the effects on the retinal images of interposing various types of lens.

40. This type of museum is probably unfamiliar to most English readers, but space does not permit of a description which would do justice either to the way in which this experimental principle has been developed, or to the wide range of subjects to which it has been applied. It is perhaps sufficient to say that there could be no better corrective to the popular idea of a museum than a visit to this remarkable and recent addition to a city already rich in museums.

41. Parties from educational institutions, in charge of a teacher, are admitted at a reduced fee. About 2,000 such parties (representing 60,000 pupils) attend each year—1,200 from the neighbourhood of Munich and 800 from other countries and other parts of Germany. The museum issues simple, practical pamphlets specially written for the guidance of such parties, in addition to the usual handbooks, and places freely at their disposal all its resources of staff and accommodation. The attendants are all experts in the subjects under their charge. In the new part of the building now under construction there will be libraries and other rooms in which sketching, writing of notes, etc., can be done under comfortable conditions.

42. The Wandervögel and Wandertag (German equivalents of our School Journey and Educational Visit movements) have enabled schools from the surrounding country, and even from such distant places as Hamburg and Kiel, to make use of this museum. The Youth Hostels and other institutions provide cheap lodging, and the State Railway provides cheap transport.

### Folk Museums.

43. In certain continental countries are to be found "Folk Museums" which are of a type still unfamiliar in this country. They are of great educational value and general interest, and they illustrate a possibility of co-operation between schools and museum authorities of a kind which has already been mentioned in paragraph 31 above. Good examples may be studied at Aarhus and Lingby (Denmark), Skansen (Sweden), and Arnhem (Holland). They consist of transplanted cottages, wind-mills, water mills, smithies, etc., which have been erected in public parks, either singly or as village groups, and fitted with appropriate village furniture, tools, etc., which can thus be studied in their proper setting. At Skansen there is also, in a neighbouring building, the Northern Museum, an indoor exhibition of social life in Scandinavia in the past. Such museums have preserved what might otherwise have been lost for ever—memorials of the arts, crafts and home life of the ordinary people. In some parts of Europe the school children have been invited to assist in collecting old utensils, articles of clothing, and so on, for such museums; such objects are often deemed worthless in the villages, but they represent types which will rapidly disappear and are worthy of preservation for educational and other reasons.

### English and Welsh examples.

44. The Folk Museums and the Deutsches Museum have been mentioned as illustrating principles scarcely familiar in our own country, but full of educational interest. The three American examples, on the other hand, represent types of organisation which have been attempted here and there in England and Wales, though the American organisation is on a very much larger scale. That such arrangements are not by any means impossible in our own country, however, can be shown by a few examples of

what has already been attempted. They are, of course, merely typical examples, and do not profess to constitute an exhaustive survey. It will be convenient to begin with a few paragraphs on the use made of the richest group of museums to be found in any single city of the world.

#### London.

45. London is so crowded, and its resources are so vast and so varied, that it is perhaps inevitable that the initiative should be left to the individual teacher and the individual museum. The London County Council issues a leaflet giving particulars of facilities for educational visits, including visits to museums, and has co-operated with the Victoria and Albert Museum, the Bethnal Green Museum, the Science Museum, and the London Museum in arranging courses for teachers and special classes for pupils. As a rule only four educational visits a year are permitted to each elementary school child of suitable age, and the Council has prescribed in some detail the procedure to be followed and the conditions to be observed in making such visits. Where, however, definite schemes of study can be arranged, linked with the school curriculum and approved by the Inspector, more elastic arrangements are permitted. Some neighbouring Local Education Authorities (e.g., Croydon and East Ham) also arrange for parties of school children to pay regular visits to the London collections.

46. That the pupils learn, even from casual, isolated visits, to appreciate the collections to which they have thus been introduced, is clear from the way in which they return on their own account in their spare time. The Imperial Institute, the Science Museum, the London Museum and the Bethnal Green Museum are perhaps their special favourites, but the Victoria and Albert Museum has many young devotees. The voluntary work of Miss Spiller at this last museum deserves to be widely known. In 1915 she started to collect round her the children she

found in the galleries during school holidays and to occupy them with agreeable exercises in drawing, weaving, embroidery, pottery, lino-cutting, etc., carried out with proper tools and all based on museum exhibits which had aroused their interest. Her reports to the Director are very interesting documents and reveal possibilities apparently undreamed of by many of those responsible for organising school visits to museums.

47. Most teachers in England visit London sooner or later. The teachers in Technical and Art Schools who come to attend courses organised by the Board of Education work in the museums which are under the Board's administration; the opportunity is also used to introduce them to some of the other collections in London which have so much to offer to any teacher. Other bodies which arrange teachers' courses and conferences sometimes include visits to these collections in their programmes and the Imperial Institute, in particular, has provided unusual facilities in the way of rooms and special cinema performances for their benefit. The Historical Association has just taken a particularly interesting step by preparing beforehand a special pamphlet offering guidance to its members regarding those exhibits of the Science Museum likely to be of particular interest to them.

48. Parties from Secondary Schools, Technical, etc., Institutions, and Adult Education Classes from places outside London frequently visit the great national collections. The School Journey movement has occasionally brought parties of elementary school children up to London; and visits to one or two museums are usually included in their programme. The influence of the great London collections on the provincial schools, however, is exerted almost entirely through teachers who have visited London, through the Circulation Department of the Victoria and Albert Museum, and through the sale of reproductions and publications (paragraphs 62-64 below).

### Aylesbury.

49. The Buckinghamshire County Council was probably the first county authority to enter into definite co-operative arrangements with the local museum. The Aylesbury Museum specialises in exhibits illustrating the history and natural history of the county and the Curator advises teachers in such matters as the identification of local specimens, interpretation of local lore and the selection of illustrations. Cases of exhibits, illustrative of the same subjects as the museum itself, may be requisitioned on loan by any school in the county; the cost of transport is borne by the Local Education Authority. Parties from rural schools, accompanied by their teachers, visit the museum from places as far as twenty miles away.

### Batley.

50. The Bagshaw Museum and Art Gallery at Batley supplies an interesting example of what is possible in a medium sized Borough in an industrial area. It is administered by the Batley Corporation and has for a number of years circulated to schools cases of exhibits illustrating geography, arts and manufactures, natural history, etc., together with charts, diagrams and detailed notes. Besides giving instruction at the museum to school classes (which attend according to a regular time-table), the Curator also attends local schools to give courses of weekly lessons in natural history. This museum is one of the very few in our own country which have made special provision for blind visitors; a room is set apart where they can handle the exhibits.\*

### Haslemere.

51. The Educational Museum at Haslemere, Surrey, was founded in the early 'nineties by Sir J. Hutchinson, F.R.S. Besides zoological and botanical collections, it

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\* This has also been arranged at the Sunderland Public Museum (where it began in 1912) and at the Natural History Museum, South Kensington.

contains exhibitions illustrating geology and history, arranged on the "space for time" principle—as employed in the charts commonly used in the teaching of history. In addition there is a Roman collection and a particularly interesting exhibition of the Peasant Arts of Northern Europe which has exercised a considerable influence on the local development of rural handicrafts. The Curator holds classes for school children twice weekly and conducts an examination twice a year. The children assist in the collection of specimens. Unfortunately, Haslemere is a very small town and the surrounding district is rural in character, so that not many schools are able to avail themselves regularly of the resources of this most interesting museum.

#### **Huddersfield.**

52. The Tolson Memorial Museum, Ravensknowle Park, Huddersfield, supplies an example in circumstances which are in contrast with those of the Haslemere museum. Huddersfield is a large industrial town and the museum lies at the junction of a number of valleys, each within the surrounding county area, so that a large number of schools are within easy access. Haslemere is now nearly forty years old, while the Huddersfield museum was only opened in 1922, as a memorial to two young men killed in the Great War. Haslemere is, to some extent, general in character, the Huddersfield museum is devoted solely to the geology, history and biology of the locality. In addition to providing for visits of parties of school children with their teachers, for whom the museum staff act as guide lecturers when necessary, this museum prepares collections of exhibits for circulation to schools, designed to illustrate the usual subjects of study. It is now developing a scheme for subsidiary museums in eight centres, serving the village communities of 28 urban districts; each

of these will follow, on a smaller scale, the lines of the Central Museum and will provide material and stimulus for study of the locality.

#### Leeds.

53. For more than thirty years there has been at Leeds a School Museum Scheme administered by a committee of teachers, with the assistance of Inspectors and others. Until recently, the scheme provided for regular lantern lectures at the museum, given by the Curator (usually on subjects connected with nature study) which were attended by about 200 children at a time, accompanied by their teachers. After the lecture, the children were able to study the exhibits in the galleries. The scheme was recently modified and now provides that only one class shall attend the museum at any one time, and that the instruction shall be given by the ordinary class teacher. There is a regular time-table, printed and circulated each year, and the teachers who so desire are given special leave before the class visit, in order that they may study the exhibits and consult the Curator.

#### Manchester.

54. During the War some of the elementary school buildings in Manchester were taken over by the War Office to be used as military hospitals. In order to accommodate the school children it was necessary to work about twenty of the schools on the two-shift system and to seek the assistance of public institutions, including museums and art galleries, for the accommodation of school classes. So much benefit was obtained from working in museums, that after the War, an organised system of co-operation was introduced. Teachers were selected to attend lectures given by recognised authorities at the museums, and ultimately a number were detached from their schools and allocated to the various museums to give courses of lessons to classes from the elementary schools generally. Courses under the

scheme were arranged at the Manchester Museum, the Ancoats Museum, the City Art Gallery, the Whitworth Institute, the Cathedral, the Queen's Park Museum, the Municipal School of Art and the Rylands Library. These arrangements resemble those so common in America, the specialist teachers working full time in the museums, while continuing to be employed and paid by the Local Education Authority. Head teachers arrange for their children to take courses allied with the usual school work and the class teacher is present at the lesson. Younger children usually attend courses in local history, geography and literature; for older children simple courses are provided in Botany, Zoology, Geology, Ethnology, Egyptology and Art, technical detail being eliminated. The courses include field work and cover a period of a year or two years for each pupil. It has been found that children who respond poorly to ordinary classroom teaching often develop a keen interest in the subjects dealt with in these special courses.

#### Norwich.

55. At Manchester the specialist teachers are employed by the Local Education Authority; at Norwich, a specialist demonstrator is employed by the Museum Committee to give twenty lectures a week to classes from the schools in a room specially constructed for the purpose at the Castle Museum. These lectures, usually on biological subjects, are illustrated by specimens, lantern slides, epidiascope and microscope, and every child between the ages of 13 and 14 attends at least one course of one term's duration. The children compile note books, with sketches, and an exhibition of the best of these is held at the end of each term. History lessons are also given at the Stranger's Hall (a mediæval mansion equipped with furniture, etc., of various periods) and at the Bridewell (a museum of local industries).

### Salford.

56. Since 1915 the Salford Education Committee and the Museums, Libraries and Parks Committee have co-operated to provide for the use of museum resources by teachers and to arrange organised visits by parties of school children. In 1924, these committees jointly drew up a scheme of co-operation which provided, in addition, for the circulation of exhibits to schools. The museum staff prepare portable cases of exhibits designed to illustrate the teaching of local history, geography, nature study, art, and other subjects, and accompanied by labels and notes for the use of teachers; these cases are circulated among all the schools in the town. Each year there is a conference between teachers, education officials, and the museum staff, at which are selected one or two subjects to be specially studied during the coming year; for these, specialist teachers co-operate with the museum in preparing lectures, illustrated by lantern slides. These lectures are delivered to the other teachers, who receive printed summaries, in pamphlet form, and have the loan of the slides in turn. When the teachers have given preparatory lessons, using this material, they take their classes to the museum to study the actual specimens. Between 6,000 and 9,000 children each year have received lessons and made visits under this scheme.\*

### Somerset and Wiltshire.

57. The Wyndham Trust, founded by private generosity in 1922, has provided a museum, with a lecture hall, at Yeovil and lecture rooms, suitably equipped, at Taunton and Weston-super-Mare. At Salisbury—where the museum has for some years done unusually interesting work for the schools—the Wyndham benefactions include, besides a lecture theatre, useful workshop, office and gallery

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\* The Salford scheme is now under reconsideration and may be changed.

accommodation. Lectures on subjects connected with local history are provided by the Trust for parties from the schools of these and other towns, and annual visits to places of historic interest.

### Wales.

58. The National Museum of Wales is the most recent large museum to be provided in the British Isles—the first part of the building was only opened in 1927 and much of it is still under construction—but already it is playing an important part in the national life of the principality. It is of special importance as illustrating the tendencies described in paragraphs 13 to 15 above. Already 16 museums in Wales are affiliated\* to the National Museum, and can thus receive loans, regular inspection, advice, assistance, and courses of instruction for their staffs. In return, they have agreed to specialise and may be asked to make loans to the National Museum for definite periods. The National Museum itself is arranged on modern principles and aims at differentiating clearly between the needs of the research student, of the general public, and of the schools. For the first there are reserve collections, for the second and third, attractive and interesting exhibits of the modern type, as well as the usual specimens. For all, the museum staff provides expert advice and guidance on questions connected with the study of Wales and Welsh lore.

59. Among the local museums, the *Cyfarthfa Castle Museum (Merthyr)* supplies an example of close co-operation with the schools. Classes from elementary and secondary schools attend for lessons given by their own teacher or the Curator, in which the exhibits are freely handed about, demonstrations (e.g., of the working of mechanism) are given, and drawings are made. Classes in

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\* A full account of the scheme is given in the *Museums Journal* for March 1931 (Vol. 30, p. 343).

Welsh come in order to familiarise themselves with the Welsh names of animals, birds, etc. There are circulating loan exhibits, sent to the schools fortnightly, which have recently been augmented from the reserve collections of the National Museum. The Curator of the museum at *Newport (Mon.)* sends to schools a list of subjects on which he is prepared to lecture; some time before each visit he has a consultation with the teacher in order that the class may be suitably prepared and he himself may adapt the style and matter to the needs of the class. This museum also lends lantern slides to the schools, to illustrate specified topics in the ordinary curriculum.

#### Children's Museums.

60. There is no museum in our own country comparable with the American institutions typified by the Brooklyn example already described, but museums or galleries intended to make a special appeal to children are in existence in a few places. The Horsfall Museum, Ancoats Hall (now a branch of the Manchester Art Gallery service) was founded in 1877 and is probably our most complete, as well as our oldest, English example. A Children's Theatre is run in connexion with it, the exhibits include models and pictures of special interest to children, and the nature study exhibits include an aviary. Museums of special interest to children also exist at Stepney and Warrington, while the Bethnal Green Museum has special children's galleries and a children's room is now being provided at the Science Museum, South Kensington.

## CHAPTER IV.

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### METHODS OF CO-OPERATION.

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#### Loan of exhibits.

61. The examples mentioned in the previous chapter show that many methods of co-operation between the museums and the schools have been attempted. The one least extensively in operation at present, so far as the elementary schools and the local museums are concerned, is that of circulating loan collections of exhibits, with lantern slides, diagrams, notes, etc. for use in the classrooms. From the point of view of the schools, the main usefulness of a museum lies in its possibilities as a repository of articles of educational equipment which are too costly, or too rarely used, to justify separate provision for each school. While there are often advantages in taking the pupils to the museums for the purpose of using such equipment, there are also certain definite disadvantages. It is generally true to say that the maximum benefit from educational equipment can be secured only if it is available in the school building, and especially in the classroom. There, the teacher and pupils can use it under comfortable conditions, without fear of distraction or waste of time. For these reasons, and also because many schools are, in any case, quite out of reach of the museum buildings, the "travelling museums" and circulating loan collections probably represent the only means by which the museums can give direct service covering a large proportion of the schools. It is clearly desirable that in extending or initiating such schemes teachers, educational administrators and museum staffs should act only after close consultation;

otherwise, much waste of effort will result. If proper care is taken, however, extension and improvement should be possible on these lines at very small expense. In some cases, it may even be found that economy can be effected by circulating, in this way, equipment previously purchased separately for the individual schools.

#### Reproductions, publications, etc.

62. The casts of famous sculpture sold by the Victoria and Albert Museum have long been used by teachers of Art, and the specimens of products issued by the Imperial Institute are gradually becoming known among teachers of geography and commercial subjects. The ordinary hand-books and catalogues of the large London museums, however, are not known as widely as they ought to be among teachers in Secondary Schools and Technical Colleges. They are an essential part of the library of any specialist teacher, and many of them are so well written and so well illustrated that they can very well be used by the pupils in the advanced stages of the work.

63. In addition, the great national museums now issue excellent series of cheap, useful and often very beautiful reproductions, photographs, books of pictures, and the like. These are already used by many teachers, not only in such subjects as Geography, History and Art, but also in language teaching and for decorative or general purposes; they deserve to be still more widely used. With the aid of an epidiascope they can be made to supplement the usual text book and other available illustrations, at a very low cost and with considerable educational advantage. Where the pupils are themselves able to visit the museum, the use of this material is clearly desirable in the preparatory lessons and in the revision lessons after the visit.

64. The practice of issuing such publications will doubtless extend more widely among the museums, including

local museums, and those responsible for publication would be well advised to send occasional samples to education authorities and inspectors, and sometimes to head teachers. There is probably a good opening for publications of a new type, written in a simple, interesting style, which would contain many photographs of the museum exhibits, with maps, plans and other illustrations, and would be suitable for teachers or parties from schools. The advice of teachers or others in close touch with the schools would clearly be essential in the preparation of such books, and some of the great national collections might be able to extend their influence in this way without incurring heavy expenditure and possibly even at a profit.

#### **Museum exhibits and temporary exhibitions.**

65. Some museums have co-operated with neighbouring schools by encouraging teachers and pupils to bring their finds (e.g., in botany or geology) for identification. In some areas the schools have assisted in the collection of specimens for the museum. Such arrangements are evidence of friendly relations and mutual helpfulness and are clearly worthy of encouragement. There are, indeed, many ways in which the schools can legitimately assist the museums, to the advantage of both. For example, the schools are increasingly making for themselves models, relief maps, wall charts, lantern slides and other articles, which could often be made more widely useful if the local museum had the opportunity of exhibiting or circulating some of them, either permanently or for a time. The products of school activity, when properly arranged and labelled, would not only be useful educationally but would frequently be more interesting to the general public than the collections of miscellaneous shells, fossils and minerals, weapons and stuffed birds which once crowded so much of the space in our local museums. The Technical Schools often have models of machinery, industrial and commercial

exhibits, samples of commodities, local products and so on, which might occasionally be loaned. The maintenance and repair of models is another sphere in which it might be possible for some museums to avail themselves of the services of technical institutions. Suggestions from practical teachers as to the arrangement of particular exhibits would also be of assistance in some cases.

66. Those museums which can clear the necessary space are developing the practice of arranging temporary exhibitions, either illustrating some topic of special interest at the moment or giving the public opportunities to see collections which must necessarily be dispersed after a time. The schools can help to give publicity on such occasions and museums can sometimes arrange temporary exhibitions illustrating the educational system and the work of the schools.

67. Museum administration is a difficult and technical subject, and the schools able to offer such assistance as has been suggested will naturally appreciate that the museum authorities have to consider other factors besides the purely educational. It is sometimes impossible or inadvisable to accept offers, however generous, and the schools will doubtless bear in mind the fact that the rejection of an offer or suggestion does not necessarily indicate ingratitude.

#### **School visits.**

68. Experience appears to indicate that as a rule, and subject to striking individual exceptions, any instruction given in the museum building can be undertaken more satisfactorily by the teacher than by a museum curator or even a guide-lecturer. The teacher knows his pupils, their previous acquaintance with the subject, and their individual needs; he is quick to detect signs of bewilderment or boredom. He knows when it is necessary to repeat, when to dwell on a topic, and when to give his pupils a rest

or a change. Above all, he knows that they need to be allowed to do things themselves, that listening and looking are not enough. It is his business to be expert in these matters, just as it is the business of the museum officer to be expert in the subjects represented by the exhibits. The best results are therefore likely to be obtained where the teachers previously have the help of the museum staff in planning the lessons, but are themselves responsible for the instruction actually given during the visit.

69. It is true, of course, that the technique of the museum lesson differs in many ways from that of ordinary classroom teaching. The surroundings are unfamiliar, there are many distractions, the pupils usually have to stand, and frequently only a few of them can see the object under discussion. Children find it very difficult to listen attentively in strange rooms, with strangers watching them, or to make a sketch or take notes without the accustomed support for their limbs and their books. In some museums, light portable chairs and tables are provided; in some, private generosity has recently provided special rooms, in which the classes can work under really comfortable conditions.

70. An object in a locked glass case seems very remote and unreal to many young people. If museum lessons are intended to give life and reality to school studies, the exhibits must be demonstrably real things, not merely pictures in three dimensions. Wherever possible, therefore, the cases should be opened and the pupils permitted to handle the exhibits. To judge the weight, hardness, surface texture, etc., of a specimen, to work a model with one's own hands, to help to construct or arrange an exhibit—anyone who knows children knows the vast difference between these activities and mere looking on while someone explains. There are obvious limits to what is possible in this direction: but in how many museums have these limits been reached?

71. It is desirable that both teachers and museum officers should explore the subject of the conduct of school visits and the possibility of improvement in the light of actual experience. Occasional conferences and short courses, of a purely practical kind, would enable the schools to derive greatly increased benefit from the time and effort expended on visits. Training Colleges, in particular, could assist in spreading among the younger teachers the results of experience already gained in the art of conducting museum lessons.

#### **Visits of teachers.**

72. There are museums, including some of the finest, which are, of course, unsuitable for children. The Wellcome Museum of Medical Science, for example, is one of our best examples of modern display methods, but no one would suggest that it ought be visited by parties from the Elementary Schools. Many museums are intended not for children but for the research worker, the student, or the specialist in some particular field, many are interesting to the general public but for one reason or another are not adapted to the needs of school children. Even among such museums as these, however, there are few, if any, which are entirely undeserving of visits by teachers. There is evidence that the more enterprising teachers appreciate this and take trouble to familiarise themselves with the publications and exhibits of museums in their locality, and of more distant collections.

#### **Importance of securing the interest of teachers.**

73. Some museums regularly send circulars to schools within reach, giving notes on new acquisitions, suggestions for museum lessons, and lists of the exhibits, lantern slides and other material available for circulation. Some have provided special lectures and even courses for teachers. Some curators, like some librarians, attend the conferences

and short courses for teachers organised by the professional bodies and bring cases of exhibits to illustrate the discussions. Some museums have arranged for their galleries to be specially opened outside the ordinary hours, in order that teachers may study the exhibits and consult the museum staff.

74. These measures, and others which secure the personal interest of teachers, are much to be commended. Administrative schemes of co-operation, however excellent on paper, will fail to achieve their object unless the ordinary teachers in the schools are genuinely interested. Without such interest, circulating collections will gradually fall into disuse, museum visits will become perfunctory and stereotyped and largely a waste of time, and courses of museum lectures will suffer, as manual instruction and domestic subjects suffered in the past, by being completely divorced from the ordinary school work. But if the teachers are interested, the resources of the museum are used intelligently. Visits are made with a definite objective and not as mere sight-seeing expeditions. Loan collections are used, as they should be used, to illustrate points arising out of the ordinary classroom work, and special museum lectures become an integral part of the curriculum, with the result that the outlook of the children is enlarged and their understanding of the world around them enriched.

75. It is true that some effort on the part of museum authorities is involved and some inconvenience to the museums may be caused. But surely from the point of view of the museums themselves the effort may be well worth while. Many, perhaps most, of the difficulties of the museums can be traced ultimately to the apathy of the general public; and this in turn is due, in large measure, to the lack of effective publicity. Through a sympathetic teaching profession, it is possible to interest not only the children, who are the citizens of tomorrow, but also their parents, relatives and friends.

### Concluding observations.

76. It may be suggested, in conclusion, that the word "museum" is perhaps in part responsible for the present unsatisfactory state of affairs. Does it not suggest a depressing, decaying institution, the last resting place of travellers' mementos and of fossils which have undeservedly survived from ages long ago? The existing prejudice is deeply rooted in the tough soil of our language and in the popular mind, but it would most surely be overcome if a generation of children were given systematic opportunities of enjoying the treasures of modern museums.

## APPENDIX.

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### Short List of Publications Containing Further Information.

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Directory of Museums and Art Galleries in the British Isles (The Museums Association, 39b, Alford Place, South Kensington, S.W.7, price £1 1s. 0d.).

Sir Henry Miers: Report on the Public Museums of the British Isles other than the National Museums (Carnegie United Kingdom Trustees).

Dr. E. E. Lowe: Report on American Museum Work (Carnegie United Kingdom Trustees).

Royal Commission on National Museums and Galleries :—

Interim Report. (H.M. Stationery Office, price 2s. net).

Final Report, Part I. (H.M. Stationery Office, price 2s. net).

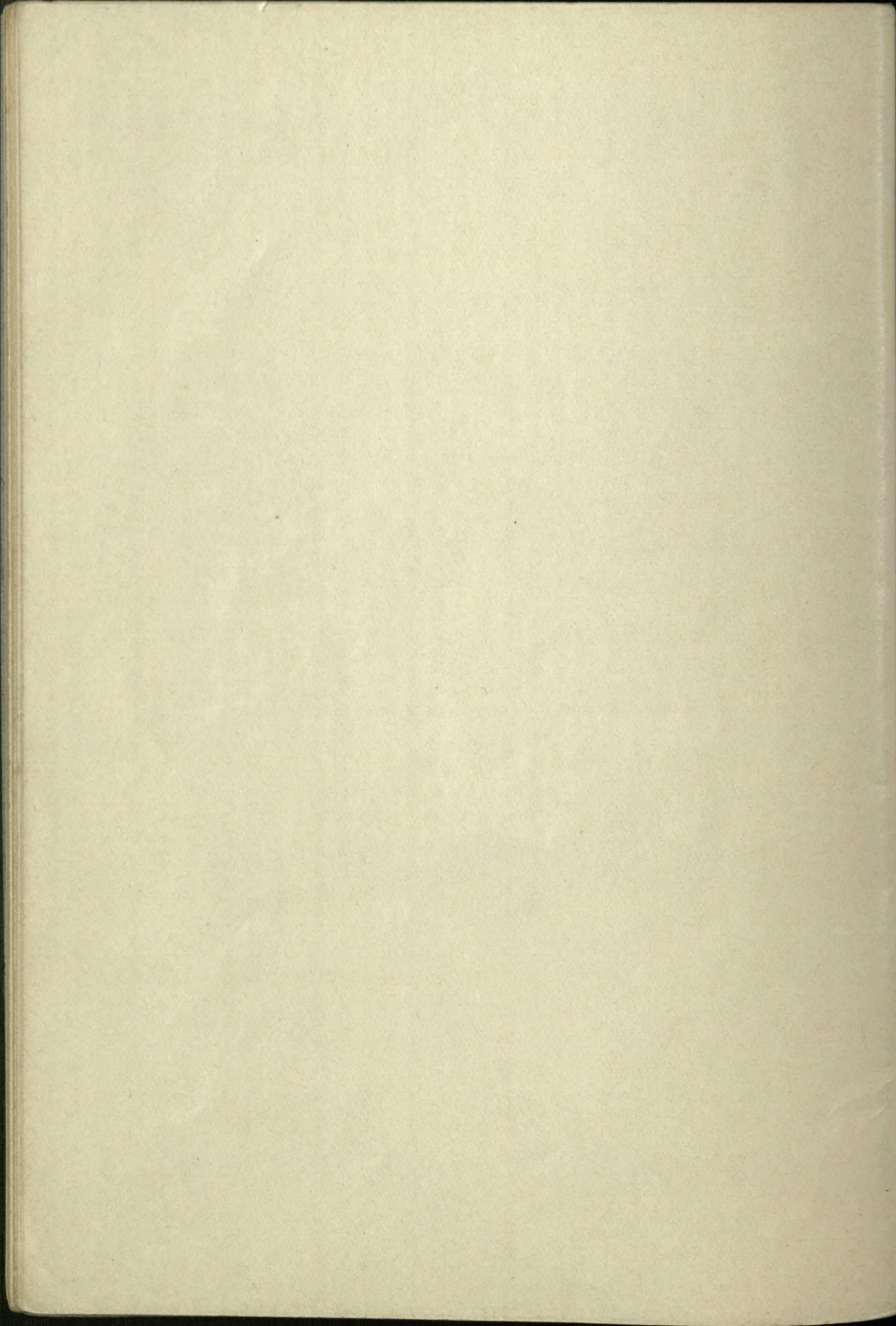
Final Report, Part II. (H.M. Stationery Office, price 2s. net).

Oral evidence, memoranda and appendices to the Interim Report, 1928. (H.M. Stationery Office, price £1 1s. 0d., net).

Oral evidence, memoranda and appendices to the Final Report, 1929. (H.M. Stationery Office, price £1 1s. 0d., net).

Deutsches Museum: Ratschläge für Schülerfahrten (Deutsches Museum, Munich, price 30 pf.).

The Museums Journal (The Museums Association, monthly, price 2s. net).



# SCIENCE MUSEUM.

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## PUBLICATIONS, ETC.

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The following publications, etc., issued by the Science Museum are suggested as being suitable for educational purposes :—

**Handbooks** giving a brief survey of the history and development of Aeronautics, Agricultural Implements and Machinery, Applied Geophysics, Industrial Chemistry, Railway Locomotives and Rolling Stock and Sailing Ships.

**Postcards.**—Picture postcards in monochrome (150 subjects) are available at 1*d.* each. The subjects illustrated comprise Road and Railway Transport, Stationary Steam Engines, Aeronautics, Water Transport, Scientific Apparatus, etc.

**Photographs.**—Over 6,000 photographs of objects in the Museum are available at prices regulated by the size of the negatives. The prices range from 9*d.* for a print from a 4½ in. by 3½ in. negative to 2*s.* for one from a 12 in. by 10 in. negative. The great majority of the negatives are of the latter size. Specimen prints may be seen at the Catalogue Stall.

**Charts**, giving a synopsis of events in connection with the development of Railway Transport Prime Movers and Pumping Machinery respectively, are obtainable at 1*s.* each (by post 1*s.* 3*d.*).

Complete lists of publications, etc., may be had on application to the Director of the Science Museum.

